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ABSTRACT

The report examines and reports on the various attempts to evaluate pupil behavior sought by career education efforts in career decision making. The paper concentrates attention on programs designed to operate at the secondary school level and was further delimited by a Statement of Work issued by the Office of Career Education. The statement included (1) review literature which is available within the Office of Career Education and other career education agencies, (2) gather input from State coordinators of career education in the 50 States and from local practitioners of career education, (3) emphasize to the greatest extent possible that the data reported represent application of a particular and well defined treatment. Most of the program materials reviewed for this study indicate a relatively informal approach to career education implementation as well as a relatively informal approach to evaluation of the programs. Examination of all the papers indicates that much activity in career decision making is included in the programs but that a sound theoretical research base for prescribing and reporting these events is lacking. (Author/BP)

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THE EFFICACY OF CAREER EDUCATION, CAREER DECISION-MAKING

Michael J. Masucci

CE008848

Introduction

The purpose of the paper was to examine and report attempts to evaluate pupil behavior sought by career education efforts in career-making. In so far as was possible, the paper concentrated attention at programs designed to operate at the secondary school level. The paper was further delimited by a Statement of Work issued by the Office of Career Education. The statement included 1. review literature which is available within the Office of Career Education and other career education agencies, 2. gather input from State Co-ordinators of career education in the 50 states and from local practitioners of career education, 3. emphasize, to the greatest extent possible, that the data reported represent application of a particular and well defined treatment.

In addition, other concerns resulted from various discussions within the Office of Career Education, the National Institute for Education and some of the career education program funding agencies. These concerns were focused on the need for discussion concerning the nature of career decision-making, the difficulties connected with its assessment and the process of determining outcome data which would suffice as evidence of career decision-making "effects".

Framework for Career Education

Kenneth Hoyt (1974) offers the following framework for career education:

> As a process, career education follows the model of career development. This model envisions a sequence in-

> volving, in a progressive manner, (a) career awareness; (b) career exploration; (c) career motivation; (d) career decision-making; (e) career preparation; (f) career entry; and (g) career maintenance and progression.

Further on in the same paper, he describes career decision-making as follows:

> Career decision-making seeks to help the individual answer three questions: (a) what is important to me; (b) what is possible for me; (c) what is probable for me?

Wise, Charner and Randour (1975) have identified two processes in career decision-making.

> Identifying opportunity: the process of perceiving and structuring career options.
>
> Assessing opportunity: the process of identifying the benefits and costs associated with each in a set of options.

They further state

> These two decision-making processes can be activated at any point in an individual's career and as society becomes more complex and as the market place creates new occupations and discards old ones, situations of choice will appear more frequently.

These statements do not contradict the previous remarks by Kenneth Hoyt, but do encourage speculation that career decision-making may not be a progressive stage, but rather a recurring event. The remarks also allude to a model of career education that will become progressively more open ended as societal complexity increases.

For discussion purposes, it is possible to consider career decision-making as a process of identifying or assessing opportunity and as actual choices such as 1. entering a specific job or career, 2. increasing one's level of aspiration, and 3. choosing a specific occupational or educational

preparation program. These certainly do not exhaust the possibilities, but should provide a sense of the direction of the search encompassing this paper. It is these and similar events that were sought for in the materials examined.

Theoretical Assumptions

It was obvious, during the examination of materials, that theoretical bases for the various programs and projects differed significantly. It became increasingly apparent that it would be difficult to assess the programs from a single or unifying point of view since the very nature of these programs included the regional differences and specific approaches intended to solve a variety of highly localized problems and issues. None the less, some discussion of the theoretical basis for career decision-making is in order.

Waldemar Unruh (1974) describes a study of career decision-making conducted by the American Institutes for Research which was sponsored by the National Institute for Education. Included in this comprehensive treatment on decision-making are a Social Learning Theory of Career Decision-Making by John Krumboltz; an analysis of related literature by Anita Mitchell and a somewhat comprehensive discussion of program interventions. Also included in the document are extensive lists of reference materials and recommendations for directions in theory development as well as program development.

The following propositions were cited in a chapter entitled "A Social Learning Theory of CDM" by John Krumboltz which was included in the same report:

Under positive influences. (on CDM)

IA1. An individual is more likely to express a prefer-

ence for a course of study, an occupation, or the tasks and consequences of a field of work if that individual has been positively reinforced for engaging in activities she/he has learned are associated with the successful performance of that course, occupation or field of work.

IA2. An individual is more likely to express a preference for a course of study, an occupation, or the tasks and consequences of a field of work if that individual has observed a valued model being reinforced for engaging in activities she/he has learned are associated with the successful performance of that course, occupation or field of work.

IA3. An individual is more likely to express a preference for a course of study, an occupation, or the tasks and consequences of a field of work if that individual has been consistently positively reinforced by a valued person who models and/or advocates engaging in that course, occupation or field of work.

IA4. An individual is more likely to express a preference in a course of study, an occupation, or the tasks and consequences in a field of work if that individual has been exposed to positive words and images associated with that course, occupation or field of work.

Under negative influences, four propositions yielding negative results are indicated

IB1. . . . if that individual has been punished or not reinforced, etc.

IB2. . . . if that individual has observed a model receive punishment or little or no reward, etc.

IB3. . . . if that individual has been consistently positively reinforced by a valued person who expresses negative opinions about the activities of persons, etc.

IB4. . . . if that individual has been exposed to negative words and images associated with that course, occupation or field of work.

Similar propositions were formulated regarding CDM Skills and Entry Behaviors into Educational or Occupational Alternatives.

In a subsequent chapter, Anita Mitchell analyzed and synthesized CDM

literature as related to the theory and since the findings were documented in her chapter, the following list represents some of the findings in her review.

More college students raised than lowered their degree of aspirations in junior college.

Large percentages of students changed goals while in college.

Project TALENT data indicate that there was little stability of choice during five years after college.

Project TALENT data from 1960-70 showed an increase in realism of career choices of high school boys.

Amount of formal training in an area positively affected the amount of information acquired in the area.

Most differences found in patterns of information reflected differences in interests.

Students expressed need for help in career decisions.

Some other findings in support of specific propositions follow:

Favorite teachers appeared to influence choice of major except for Physical Education.

More women preparing for non-traditional than for traditional careers stated that significant men in their lives believed women could perform in these areas without jeopardizing marriage or family.

Students tended to increase their educational expectations by a fraction of a year as a result of counseling. Parental encouragement was also a factor.

Numerous other findings in support of the propositions were cited suggesting the viability of the theoretical approach as a potential experimental influence in CDM program development and research. The more obvious and present value is that these chapters helped provide a perspective for examining the project materials.

Materials Collection

As previously stated, the statement of work (Appendix A) dictated the procedures to be followed, and after an initial search in the Office of Career Education and the National Institute for Education, a letter (Appendix B) requesting relevant information was mailed to the fifty state co-ordinators of career education. Over thirty state co-ordinators responded yielding approximately two hundred names and addresses of project directors of career education programs. Those states that did not respond were followed up with a second mailing of the initial request yielding several more responses.

The next step was to send a letter (Appendix C) to project co-ordinators requesting specific data related to the scope of work and the purpose of the paper. These letters yielded information concerning approximately 120 career education projects; several letters contending their programs were not designed to yield data such as requested. Still another handful of letters indicated the discontinuity of funding and, therefore, no staff existed to assist in the study.

The next step in the process was to generate an ERIC computer search on career decision-making literature (1975) in the event empirical studies had been conducted which might be linked to the project materials received from the project directors. This step, though highly informative and educational, was of no real value given the stated expectations in the scope of work. The significant assistance was from the NIE paper prepared by the AIR as previously mentioned.

As previously stated, each project co-ordinator (over two hundred) designated by the State Co-ordinators of Career Education was asked to respond to specific inquiries concerning career decision-making. (see

Appendix C). Less than one-third (approximately seventy) responded at all. Of those who did, none responded in a very specific way. More likely, they submitted the original program contract, a description of the project and a copy of the general program evaluation report (if one existed). Thus, the potential for reviewing a large sample of project events diminished at a high rate. Some other factors that significantly reduced the number of reportable events are considered below.

Many of the projects examined had stated specific program goals related to career decision-making at the elementary and middle school level, but since the scope of work called for secondary school projects, those projects were not included in this report.

Several other programs had specific career decision-making objectives and were primarily intended for secondary students, but either the treatment was so general that effects could not be traced to the program, or, the evaluation was not conducted, was incomplete, was in future plans. Therefore, those studies were not reviewed in this study.

There were a few programs which intended to cover the career decision-making area in their projects at the secondary level and to examine the results in an appropriate way, but lack of time or funding prohibited their doing so. Those programs were not reviewed in this study.

Review of Materials Received

The following projects were selected for inclusion because they included 1. specific objectives in career education decision-making activities, 2. they had relatively well defined treatments to implement the objectives, 3. they used empirical methods of evaluating their results, although in some cases raw data were reported as results. (If the form

of these data could be analyzed statistically, the raw data was reported and appropriately identified as such.) The remaining materials which were judged to be within the scope of work were examined and reported.

Review of Relevant Career Education Materials

Pima County, Arizona. Developmental Career Guidance Program, Career-Decision-Making.

The following information was contained in the "Summary Evaluation Report of Career Education" (1975). A career education media center was established at Apollo Junior High School. It was staffed by a career education specialist and was available to students as often as they wished to avail themselves of the service. Sixty-five percent of students in seventh, eigth and ninth grades (with heaviest users in the ninth grade) reported that the career center helped them decide on a future career. Seventy-five percent said the materials were useful concerning education requirements for various careers. In the same project, a t-test comparison of means for students having more exposure to career education with students having low exposure, yielded statistically significant differences (.001) in the high exposure group's greater ability "to recognize and demonstrate the decision-making skills associated with various occupational roles. Also, they were better able to recognize the degree of responsibility which is inherent in different jobs."

Cochise County, Arizona. Career Education Project.

The following information was reported in a document entitled "Cochise County Career Education Project" (1975) prepared by Behavioral Research Associates. A t-test comparison demonstrated that secondary students with high exposure to career education were more knowledgeable (statistically

significant at .001) about decision-making skills necessary than were secondary students with low exposure to career education.

Grassmont Union High School District, La Mesa, California.

Based on a comprehensive study of objectives and implementation centers in the state of California, Thomas J. Jacobson (1975) has reported significant ratios of increase on numerous career development objectives as students increase frequency of visits to career centers. More important, his research leads to the recommendation that teaching decision-making skills become an important priority for career centers. In his study, he points up the lack of useful curriculum in the career decision-making area (and implies the lack of professional human resources in this area). These events indicate a need for funding programs to train experts in career decision-making curriculum development and specialists in the implementation of such materials.

Georgia, Crisp County Education Programs.

The following information was contained in a document entitled "Career Education Projects" edited by Frank E. Wellman (1974). The following objective was stated as part of the career education program in Crisp and Liberty Counties:

> The pupil will apply the decision-making process to a series of decisions and commitments in the development of a career plan.

Further, the process for evaluating the objective was stated as follows:

> The pupil will be able to defend his cluster selection with facts about himself, the cluster chosen, and his reason for his belief in the careers available in the cluster. The pupil will submit a plan to the teacher or counselor outlining his desired life style, and how he plans to reach this goal.

This goal was judged to have been fully achieved in the eleventh and twelfth grade in Crisp County and the twelfth grade in Liberty County, but not in the eleventh grade in Liberty County. The judgements were based on a Survey of Education and Career Plans and on the Career Maturity Inventory results.

Las Vegas, Nevada. Clark County School District.

The information reported was from a document entitled "An Objective-Based Career Guidance Program" (1975). In an objective-based career guidance program (Profile Counseling) students were given "hands on" data about themselves from a computer-based information gathering system. The profile included grades, test scores, discipline indexes, career aspirations and educational aspirations. They received help interpreting the data from counselors, teachers, peers and parents. The Class of 1975 which received the profiles was compared with the Class of 1974 who did not receive the profiles. T-ratios (significant at the .05 level) indicate that the Class of 1975 felt better prepared to make intelligent decisions concerning future planning.

Pleasantville, New Jersey. Career Development Program.

The following information was contained in a document entitled "Summer Coupled Work/Study Evaluation Results" (1975).

In a program entitled "Coupled Summer Work/Study," forty tenth and eleventh grade students were provided on-the-job training and work experience in various community agencies for a six-week period. These students were administered the Career Maturity Inventory in both pre and post test. The data presented demonstrates a significant improvement on all scales but the attitude scale (although statistical test of significance was not reported).

CAREER MATURITY INVENTORY
(Sub Test Scores)

	Average Percentile		Mean Percentile		Below 50th Percentile	
	Pre	Post	Pre	Post	Pre	Post
Part 1 Knowing Yourself	36	51	35	44	31	19
Part 2 Knowing About Jobs (Occupational Information)	57	71	53	82	17	9
Part 3 Choosing A Job (Goal Selection)	44	64	39	66	24	11
Part 4 Looking Ahead (Planning)	56	76	53	83	13	5
Part 5 What Should They Do? (Problem Solving)	65	77	64	80	9	2
Attitude Scale	55	50	59	42	12	20

N=40

North Central Vocational, Technical and Adult Education District, Wausau, Wisconsin.

The following information was contained in a document entitled "Third Party Evaluation Report of Career Education for Persons in Rural Areas—Primary Focus on Adults 16 and Over," (1975).

In a career education program for persons in rural areas with a primary focus on adults 16 and over, a program was implemented that included the objective " to assist persons in self-evaluation and determination of career direction through testing, counseling and guidance . . . ." A summary of test results for the variable career planning knowledge yielded no significant difference between the treatment and control groups for grades twelve.

Summary

Most of the program materials reviewed for this study indicate a relatively informal approach to career education implementation as well as a relatively informal approach to evaluation of the programs. With this fact in mind, one can cautiously interpret the findings of the few studies cited, to indicate that it is possible to plan career education programs which include career decision-making objectives and to evaluate these in a relatively formal manner. Obviously, the great majority of programs (although most recognized the importance of career decision-making) elected to direct primary focus on awareness, achievement or other career education goals. Another important point to consider is the lack of longitudinal data to examine the nature of an evolving process of career decision-making which must be undertaken if a better understanding of decision-making is to occur.

Since the title of the paper included the word "efficacy" which means either the power to produce effect or the production of intended effects, one can generalize that career education programs have the potential power to produce career decision-making effects which are specific and desirable. It is also obvious that wide scale attempts at producing specific career decision-making "effects" has either not occurred and/or has not been reported extensively. Examination of all the material (including that which was not included in the paper) indicate that much activity in career decision-making is included in the programs. What seems to be lacking is a sound theoretical-research base for prescribing and reporting these events.

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APPENDIX A

Statement of Work

1. Contractor will meet with project officer in July, 1975, in Washington, D. C., to review literature which is available within the Office of Education and other career education agencies.

2. Contractor will gather input from State Coordinators of Career Education in the 50 States and local practitioners of career education.

3. The paper should emphasize, to the greatest extent possible, that the data reported represent application of a particular and well-defined treatment. The paper will be written with the view that the primary audience will be local career education practitioners.

4. The contractor will be required to submit an original and 25 copies of the paper to the Office of Career Education, U. S. Office of Education, no later than October 15, 1975.

APPENDIX B

TO: Each State's Co-ordinator of Career Education

FROM: Mr. John Michel, Acting Director of the National Advisory Council for Career Education.

The Council has recently contracted with four individuals to prepare a paper entitled, The Efficacy of Career Education. As a state co-ordinator of career education, you can direct these individuals to career educators in your state who have made systematic efforts to evaluate the impact of their programs. The Council is particularly interested in the evaluation methodologies and measured results of programs whose objectives invalue:

1) the development of career awareness
2) the maintenance or improvement of academic achievement
3) the development of career decision-making skills.

Other program emphases such as career exploration, career preparation and job placement are also of interest to the Council in their effort to establish the full impact of the career education programs around the United States.

In the space below, please enter the names of projects you feel should be included in the Council's study, and supply the contact information and program classification requested. Mail your list of projects in the enclosed self-addressed envelope. In order for your input to be considered in this study, it is important that your input be received no later than AUGUST 15. Thank you for your cooperation.

PROGRAM OR PROJECT TITLE AND FUNDING SOURCE	NAME, ADDRESS AND PHONE OF CONTACT PERSON	AREA(S) EMPHASIZED IN PROGRAM'S OBJECTIVES

APPENDIX C

Dear Career Education Director/Coordinator:

Your name/project was given to me by the coordinator of Career Education in your state in response to the attached letter from John Michel, of HEW. As the letter indicates, several of us have contracts to evaluate specific positions of those programs.

Since my contract area of interest is CAREER DECISION-MAKING SKILLS, I would appreciate any information you can send me which relates to Career Decision-Making Skills learned by participants in your program.

More specifically, I need (in addition to a general description of the project):

1. a description of the objectives,
2. the treatment or means by which the objectives were met,
3. the research design,
4. the method of analysis,
5. the results and evaluations related to the objectives.

If by chance, yours was not primarily a project intended to improve Career Decision-Making Skills, I will appreciate a narrative statement of program results in the area of Career Decision-Making.

Since we are operating under a tight schedule, your prompt attention will be most welcome. Thank you for your assistance.

Sincerely,

Michael J. Masucci
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Enclosure
MJM:sph